DOCUMENT RESUME

ED 239 377 EA 016 336

AUTHOR Komoski, P. Kenneth
TITLE 4xE=Equitable Electronic Educational Excellence.
INSTITUTION National School Boards Association, Washington, DC. Educational Policies Service.
PUB DATE Nov 83
NOTE 4p.; Adapted from remarks to the Council of Chief State School Officers (Albany, NY, August 2, 1983).
PUB TYPE Viewpoints (120) -- Journal Articles (080)
JOURNAL CIT Updating School Board Policies; v14 n10 p1-3 Nov 1983

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Computer Assisted Instruction; *Computer Literacy; Copyrights; *Educational Technology; Elementary Secondary Education; *Equal Education; *Microcomputers; School Security; Video Equipment
IDENTIFIERS Computer Security; Computer Selection; ComputerTown

ABSTRACT

Policy strategies for integrating microcomputers into public school curricula in a manner conducive to quality control and social equity are described. Educators should establish and maintain standards of excellence for instructional software, evaluating it prior to purchase, informing parents of purchasing criteria, and providing a list of school-approved software for home use. Equal access to educational technology can be promoted by a parent training program, coupled with agreements with computer vendors to provide discounts on school-compatible models and/or a pool of computers available on loan to low income parents who complete the training. These combined strategies can help policymakers manage the direction of the ongoing transformation so that educational technology is accessible to rich and poor alike as public schools interact with public libraries and the private sector to provide high quality electronic educational resources for all. (TE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. Floyd

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

ED239377

Updating SCHOOL BOARD POLICIES

Volume 14/Number 10/November 1983

A component of the Educational Policies Service of the National School Boards Association provided to EPS subscribers and NSBA Direct Affiliates

4×E=Equitable Electronic Educational Excellence

(Adapted from remarks by P. Kenneth Komoski to the Council of Chief State School Officers, August 2, 1983, Albany, New York)

The laudable goals of achieving and maintaining both excellence and equity in education through public schooling continue to elude the best efforts of our most dedicated educators and legislators. Today we seem convinced that electronic education via computers and related electronic technologies will help us to achieve them.

According to *U.S.A. Today* (April 21, 1983), "Ninety-one percent of the United States population now thinks that students should learn to use computers in school in order to better prepare themselves for the future." Presumably, it is the intent of ninety-one percent of the population to have our schools prepare *all* students to function well and to achieve gainful employment in an information-age economy.

Yet recent findings reveal a discrepancy between the number of computers in schools attended by poverty-level children compared to schools attended by children from more advantaged households. Also indicated is that poverty level children are falling rapidly behind in computer access, and that "the chasm between the privileged and the underprivileged is likely to grow wider." Also, a recently published study by a major market research organization claims that microcomputer use in public schools may provoke a legal challenge from poorer schools and communities.

The parallel concerns of equity and excellence in electronic education must become the central concerns of educational policy makers. But rhetoric alone will not achieve these goals. Strategies, tactics, and policies that address these concerns are needed.

Some school systems already are trying to bridge the electronic gap between the "haves" and the "have nots" in ways that also attend to the achievement of educational excellence. To build on these efforts and magnify them into national strategies and policies, they must be judged (1) educationally sound, (2) politically feasible, (3) economically affordable, and (4) generally acceptable to taxpayers, teachers, school administrators, legislators, school board members, and computer hardware and software manufacturers and vendors. This is a tall order, but to not fulfill it will be a tragic mistake.

Recognize implications

Computers are causing a major shift in the structure of American education. This shift will reframe and redirect American education—either toward excellence, equity, and coherence or toward inadequacy, inequity, and confusion.

To understand this restructuring and how it changes the context of the educational experience, consider the following facts.

The first is that for the past 25 years only about one percent of education budgets nationwide has been spent on instructional materials used by teachers and students (i.e., textbooks, workbooks, films, tapes, computer software). This translates into approximately $20-$30 per student, per year—a relatively modest $1 billion annually.

The second fact is that, out of that $1 billion annual budget for instructional materials's, schools will spend under $30 million (about three percent of the material's budget) on computer software.

Fact three is that sales of educational software to homes this year will exceed $300 million—ten times the sales of such software to schools. Clearly, the bulk of the software market lies with homes—not schools.

What then is the long-range potential for the educational market? Given the current accelerated pressure to increase teacher salaries (as a result of various reports on education being released), the likelihood of any significant increase in expenditures for instructional materials—specifically for computer software—seems meager. With an expanding household market and with increased attention being given to educational technology by educators, it is possible—maybe likely—that the portion of the one percent spent on educational software by schools today will increase, perhaps to a level of one-half of one percent of the average school budget.

Achieving excellence

In the rush to satisfy a national ambition to have students learn to use computers, school systems unfortunately find that most educational software is not designed to be integrated into their existing or evolving curricu-

continued on page 2

P. Kenneth Komoski is executive director of the Educational Products Information Exchange (EPIE) Institute and adjunct professor of technology at Columbia Teachers College. He will be a faculty member at NSBA's Computer Alliance-sponsored conference on "Using Computers Well: A How-to Conference for School Systems" scheduled for February 8-9, 1984 in San Francisco; he also will be featured in the 1984 NSBA convention program in Houston, March 31-April 3.

EA 016 336

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

continued from page 1

lum. They also find that a large proportion of available software is instructionally and technically inadequate.

Policies and procedures need to be established that focus on the overall curriculum integration of all types of instructional materials. The effectiveness of such integrative information is lost if it does not include all types of instructional materials—traditional as well as computerized. The electronic technology exists to help every classroom teacher use instructional materials coherently, and help schools advise parents on how educational software can be used to reinforce the school curriculum at home. But people must be trained to use curriculum-integrative information. Needed are policies to assure that this happens.

Priority, of course, must be given to steps that lead to production of improved educational software. Judging from critical evaluations done over the past year at the consumer-oriented Educational Products Information Exchange (EPIE) Institute, only about 20 percent of currently available educational software is worth buying—regardless of whether it fits coherently into a school's curriculum. Before educators lose their leverage in the educational software market, they should establish evolving standards of excellence for instructional and technical software quality. Those standards should be built into reliable evaluation instruments and selection practices.

Currently, software producers safeguard their products from piracy by requiring purchase to be made on an "as is" basis. But educators fail to safeguard their students by acquiescing to those conditions. Until educators become better consumers and insist on different industry practices, they are abdicating their curriculum responsibilities.

Software, of course, is much more difficult to evaluate than are textbooks. With software, teacher intervention is not always essential—or even expected. For most educational software to be effective, quality instruction must be built in. Educators and parents need to know whether that quality is present before they purchase instructional software.

The following three policy suggestions indicate how educators can take a leadership position in shaping the quality of the educational computing market.

(1) Inform parents of the criteria used to purchase a school's computers. These criteria should be headed by the proviso that no hardware be purchased unless a sufficient supply of high quality software compatible with the school system's curriculum is available.

(2) Buy no software that has not been thoroughly evaluated and previewed by teachers prior to purchase.

(3) Give parents a list of evaluated software selected for student use in school. Include in the list software that is approved by the school system, but not purchased for use in classrooms.

Computer equity

In addition to educators taking a leadership role in shaping the quality of electronic education, there are ways educators can begin to deal with the issue of equal access to educational technology. The practical experiences of some school systems concerned about computer equity serve as examples.

Community School District 18 (Brooklyn, New York) instituted in-school training for parents to demonstrate how home computers can be effectively used for instruction. As a result of their training, parent interest in purchasing the same model of computer used in the schools developed. In response, the school system negotiated a contract with its computer vendor that allows parents to benefit from the system's substantial educational discount as well as its extended warranty and liberal service contract.

Also, if a school system helps those parents and teachers who can afford to purchase their own school-compatible computers (and helps local vendors potentially to sell more computers), the school board also should adopt a policy to help those parents who cannot afford to purchase a computer. For example, parents who participate in the school-sponsored training program who can't afford to buy a computer should be able to borrow one from the school system for home use.

Last year the Houston Independent School District established such a program for disadvantaged families. Using Chapter 1 funds, the Houston school system (K-12, 193, 907 students) purchased a supply of computers solely to be home-use loaners for parents who complete 12 hours of training. Building on Houston's example, school systems that help increase a vendor's sales of computers in a community should negotiate an agreement with the vendor/manufacturer to donate one computer for every machine purchased by qualified parents and others. The donated computers can become available for loan to disadvantaged families who successfully complete in-school training.

Based on these practices, the following policies might be considered for adoption by local school boards.

(1) Negotiate an agreement with the school system's computer vendor/manufacturer, that enables all parents, teachers, and others who complete school-sponsored training in at-home computer use to purchase the school's computer model under the price, service, and warranty terms available to the school system.

(2) Establish a pool of computers available for loan to disadvantaged families for home use based on the prerequisite of parent training.

The policies school systems adopt over the course of the coming months and years will go a long way toward transforming the education market. The implications and responsibilities attendant to such a transformation are many, but the major implication may well be the transformation of public education itself.

Updating School Board Policies is published eleven times annually and provided to every board member and the policy administrator of school districts that are members of the National School Boards Association's Direct Affiliate Program or subscribers to NSBA's Educational Policies Service. **EPS Staff**: Dale Gaddy, director, school district management services; Brenda Z. Greene, editor; Nancy Dickinson, production manager; Eve Shepard, clearinghouse manager.

Information presented in EPS/NSBA publications does not necessarily reflect official NSBA viewpoints.

Copyright 1983 National School Boards Association

NSBA President
M. Joan Parent
NSBA
Executive Director
Thomas A. Shannon
Associate
Executive Director
James Betchkal
Assistant
Executive Director
James A. Mecklenburger

Future outlook

Looked at positively, this transformation could reorient K-12 public schooling toward providing community-wide, life-long learning opportunities for all citizens. It could do so within the framework of public school/public library/private sector interaction that would shape and interweave in-school and out-of-school learning. Such a positive outcome could make a major contribution toward achieving equitable and electronic educational excellence for all. But, implicit in such an outcome is state and local leadership that understands and exploits the growing educational interest in and use of computers by home consumers.

Computer training provided to parents and other interested community members through public schools and libraries—if properly designed—would be a first step in creating a community-based strategy for achieving a technical (or computer) literacy comparable to the sort of community-based school and library efforts that achieved widespread verbal literacy across the country nearly a century ago. A model that easily could be adapted by local leaders to their local needs not only exists, but is being implemented in a significant number of communities across the country. This model, which was developed with the support of the National Science Foundation, is known as *Computer Town USA*. It promotes the idea of community-wide computer involvement centered around the public library. The model could, however, and should be, extended to include public schools in local adaptations. State education agencies could play a facilitating and stimulating role in the development of such adaptations within their states by arranging technical support and promoting visibility for communities that are implementing such an extended model.

The transformation of public education, however, cannot be left unmanaged. To do so would create community-wide computer cacophony and home-school confusion—even confrontation—over whether schools or parents are making the more educationally appropriate computer and software purchases.

Another highly probably confrontation already alluded to is a confrontation between local authorities and poverty-level families whose children are falling increasingly behind those children who have ready access to computers both in school and at home. Such potential educational and social confrontations within communities may even result in families (who can afford to) educating their children at home—electronically. And there's the further possibility that such families, and the commercial interests serving them, might one day lobby successfully for tax credits for such home education expenses.

In short, there are several possible, very negative outcomes for public education that could result from increasing use of computers. Public education may in fact be at an electronic crossroads. The educational potential of computers and educational technology may depend on whether educators continue doing what they're doing or cross into innovative involvement in community-wide education.

The immediate and long-range benefits of the strategies and policies outlined above could be many:

(1) Training parents of school-age and preschool children would demonstrate to the community that public education is anticipating the major education restructuring that is coming about as a result of low-cost, at-home computer access.

(2) At-home access (at school-negotiated discounts) would promote in-school and at-home computer compatibility and reduce community-wide confusion.

(3) Use of aggregated computer purchasing power could foster donations of computers by manufacturers for use in poorer schools and poverty-level homes.

(4) Providing parents and local software vendors with lists of curriculum-compatible educational software can promote community confidence in decision making and the leadership capacity of local education leaders.

(5) Public school and library cooperation in establishing community-wide software exchanges would increase the variety of school-recommended, curriculum-compatible software available to parents and reduce the temptation to illegally copy software.

(6) Public school and library cooperation in a community-wide program could help achieve a national technical literacy comparable to the verbal literacy accomplished by these same institutions in the past.

State and local leadership should vigorously promote these or alternative strategies designed to accomplish the dual community-wide goals of excellence and equity of electronic education. But these suggestions are not enough to accomplish what needs to be done regarding equity of access. To deal with computer equity, local and state officials must press for federal legislation that provides greatly increased funds for disadvantaged school systems aimed at providing computers and teacher and parent training to achieve effective school and home use of educational technology. The responsibility for active rather than reactive or retroactive policy making belongs to all who care about excellence and equity through free public education—electronically or otherwise.

Finally, with regard to the future outlook, many knowledgeable people believe that the present stand-alone computers and software represent only an interim step. In the future, they believe, most computer software will be delivered via cable television, telephone lines, or even FM radio—to those who pay a fee. But what about those who cannot afford the fee? Should not federal, state, and local officials be promoting federal, state, and local legislation that provides those unable to pay for them with free access to such delivery systems?

Will there be problems in carrying out these suggestions? Yes, of course. But only by taking on these problems and trying to resolve them can we ensure that an excellent education will be provided to all learners. ■